

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior listings and versions:

1. (cancelled).
2. (currently amended): A protein consisting of the amino acid sequence of SEQ ID NO:1, with one or more mutations that reduce or eliminate ADP-ribosylating activity of the protein.
3. (original): The protein of claim 2, wherein the amino acid sequence contains between one and twenty mutations.
4. (canceled).
5. (previously presented): The protein of claim 2, wherein the mutation(s) are independently substitutions, insertions, and/or deletions.
6. (original): The protein of claim 5, wherein the mutation(s) include single amino acid substitutions.
7. (previously presented): The protein of claim 5, wherein the mutation comprises one or more of the mutations listed in Table 1.
8. (currently amended) A protein comprising the amino acid sequence of a protein according to claim 24.
9. (original): A protein comprising an amino acid sequence having greater than 50% sequence identity to the amino acid sequence recited between residue 410 and residue 604 of SEQ ID NO:1.

10. (previously presented): A protein comprising a fragment of 7 or more amino acids from a protein according to claim 9.

11. (canceled).

12. (previously presented): A protein of claim 9, wherein said protein is associated with at least one molecule of NAD, nicotinamide and/or ribosyl- ADP.

13. (previously presented): The protein of claim 2, for use as an adjuvant.

14. (original): The protein of claim 13, for use as a mucosal adjuvant.

15. (currently amended): A method of raising an immune response in an animal, the method comprising the step of administering a protein according to claim 2-4 to said animal.

16. (currently amended): An immunogenic composition comprising the protein of claim 2-4 in admixture with an antigen.

17. (currently amended): An antibody which binds to the protein of claim 2-4.

18. (currently amended): An isolated nucleic acid encoding the protein of claim 2-4.

19. (previously presented): An isolated nucleic acid comprising the nucleotide sequence recited in SEQ ID NO:2.

20. (previously presented): An isolated nucleic acid comprising a fragment of 10 or more nucleotides from the nucleic acid of claim 18.

21. (previously presented): A vector comprising a nucleic acid sequence of the nucleic acid of claim 18.

22. (original): A host cell transformed with the vector of claim 21.

23. (previously presented): A composition comprising the nucleic acid of claim 18.

24. (previously presented): A composition comprising the antibody of claim 17.

25. (currently amended): A method of treating or preventing bacterial infection, the method comprising administering a protein according to claim 24 or a nucleic acid encoding the protein to a subject.

26. (previously presented): The method of claim 25, wherein the bacterial infection is caused by Listeria monocytogenes.

27. (previously presented): The method of claim 26, wherein the bacterial infection is listeriosis.

28. (canceled).